

LLOYD E. GANDY.

JANUARY 8, 1921.—Committed to the Committee of the Whole House on the state of the Union and ordered to be printed.

Mr. HULL of Iowa, from the Committee on Military Affairs, submitted the following

REPORT.

[To accompany H. R. 13040.]

The Committee on Military Affairs, to whom was referred the bill (H. R. 13040) authorizing the Secretary of War to grant to Lloyd E. Gandy, of Spokane, Wash., his heirs and assigns, the right to overflow certain lands on the Fort George Wright Military Reservation, at Spokane, Wash., on such terms as may be prescribed by the Secretary of War, and for other purposes, having considered the same, report thereon with a recommendation that it do pass.

In support of the measure, a letter from the Secretary of War, Hon. Newton D. Baker, is hereby inserted and made a part of this report.

WAR DEPARTMENT,
Washington, April 14, 1920.

The CHAIRMAN COMMITTEE ON MILITARY AFFAIRS,
House of Representatives.

Sir: Under date of March 24, 1920, I acknowledged the receipt of your letter, dated March 15, 1920, requesting a report on H. R. 13040, which authorizes the Secretary of War to grant to Lloyd E. Gandy the right to overflow certain lands of Fort George Wright Military Reservation, and informed you that I had referred the same to the commanding officer thereof for a report.

The report has now been received, and in reply I beg to advise you that the War Department has no objection to the bill.

The only objections that could be raised to the bill in behalf of the Government are—

- (a) That it may be difficult to find another satisfactory rifle range;
 - (b) That the sewage which flows into the river above the reservation may cause the lake formed by the dam to become a nuisance; and
 - (c) That more land of the reservation may be overflowed than is claimed.
- Inasmuch, however, as the bill makes it a condition precedent to the grant that a satisfactory target range be furnished in exchange for the overflowed land, and inasmuch as the Secretary of War is authorized to prescribe the terms and conditions of the grant, there will be no difficulty in safeguarding the interests of the United States in the particulars mentioned without the necessity of any amendment to the bill.
- I inclose copies of the report of the commanding officer, Fort George Wright, and all indorsements thereon and papers attached thereto (except maps).

I do not, however, concur in the proposal of the commanding officer (3d indorsement) that the bill be amended so as to authorize the Secretary of War to condemn at the expense of the grantee the land to be exchanged, because such an amendment would in my opinion be invalid.

Respectfully,

NEWTON D. BAKER, *Secretary of War.*

[Fourth indorsement.]

HEADQUARTERS WESTERN DEPARTMENT,

March 25, 1920.

TO THE ADJUTANT GENERAL OF THE ARMY,

Washington, D. C.:

1. Forwarded, inviting attention to third indorsement.
2. As all rights of the Government are amply protected by the bill, and the flooding of the range is not authorized until after a new range (acceptable to the Secretary of War) is provided and equipped, it would appear that the bill as a whole could meet with no objection.
3. It is to the public interest that conservation of water supply for power and other purposes should be fostered by all branches of the Government service whenever possible.

H. LIGGETT,

Lieutenant General, United States Army, Commanding.

NW/RK. Nine inclosures.

[Fifth indorsement.]

FORT GEORGE WRIGHT, WASH., *April 1, 1920.*

To the Chief of Staff:

Nine inclosures.

H. G. N.

[Third indorsement.]

HEADQUARTERS FORT GEORGE WRIGHT, WASH.,

February 27, 1920.

TO THE COMMANDING GENERAL WESTERN DEPARTMENT,

San Francisco, Calif.:

1. Investigation as directed in the above letter has been made and data obtained by Maj. Paul K. Johnson, Twenty-first Infantry, and the following report is rendered:

2. The present target range is located on a strip of land bordering the Spokane River. The river in the past has washed out a narrow channel, leaving banks about 200 feet high and at a 1 to 1 slope. The old bed of the stream, where it passes the reservation, is about 800 feet wide and the present width 400 feet. This leaves a shelf of bluff 400 feet wide and but 40 feet above the present shore line. The inclosed blue print marked "A" shows the formation. The land used for the range is 1,050 yards long and 50 yards wide. It has been well graded up to include the 600-yard firing point. On the side away from the river the hill or bank of the old stream rises abruptly and is thickly wooded with pine. The 800 and the 1,000 yard firing points are located at the same elevation, but not directly in line with the other firing points, it being necessary to follow the curve of the river.

3. The range is equipped with one target butt of concrete and masonry. It is simply a wall 75 yards long with earth graded up to its top on the side toward the firing points. There is no overhanging shelf to protect the target markers. There are eight target frames for holding the "A" and "B" targets and four frames for the "D" targets. The frames are the standard type issued by the Ordnance Department. A small concrete butt 65 feet long is equipped with track for moving targets. In rear of the butts are two wooden range houses, one 15 by 24 feet and the other 9 by 12. The signal equipment consists of a single pair lead-covered cable running from the butts to the 1,000-yard firing point, with outlets at all ranges and at the butts for connecting field telephones.

4. The target range is one-half mile from post headquarters.

5. The range is an excellent one for the qualification course, but is limited when used for field firing. Its nearness to barracks makes it especially desirable.

6. The inclosed letter from Mr. U. B. Hough, the engineer in charge of the engineering plans, explains the situation very well. To this letter may be added that actual elevations, conditions and continuity of the basalt rock that underlie, beds of

sand and gravel of varying degrees of fineness and thickness, and adjoining the river east bank at some little distance, may occasion seepage around a dam built to maximum height. That this question of seepage can not reasonably be determined in advance of dam construction is obvious. It is thought not to be serious, but that due caution necessitates an actual demonstration by first erecting a dam to what is indicated in Mr. Hough's letter as "minimum" elevation for the first installation. This first installation would not flood the target range to any serious extent, and the building of a retaining wall with the filling in of certain depressions below the present general level is all that would be required to protect the interests of the Government.

7. If no serious loss by seepage occurs by erection of the first section of the dam referred to as "minimum" height, the dam will then be raised to "maximum" height. The demand for power might control to some extent as to whether this dam was raised to maximum height immediately on a satisfactory demonstration, or whether it would wait increased demand for power if such increased demand were necessary to justify the increased expense. The facts indicated with respect to minimum and maximum dam construction has caused the engineers to state their plans in the alternative, as to maximum and minimum development, but if maximum development is carried on the target range would be flooded to a depth of approximately 10 feet, which would make the filling in to the new water level prohibitive as to the expense. Likewise, maximum development requires the selection of another piece of ground for target range, and which is not actually required by minimum development, and the right to pursue minimum development is desired even though maximum development is denied.

8. The boundary of the reservation formed by the Spokane River is 3.95 miles long. In case of maximum development, a strip of land of that length and of from 30 to 420 feet wide would be flooded. The maximum width is at the 300-yard firing point of the target range. The area flooded would be about 45.7 acres. The shaded area on sketch "B" indicates the area flooded. This area is for the most part a very steep slope of the river bank and is of no value to the reservation. It is partly wooded, there being 366 pine trees of over 1 foot diameter. The cost of logging would prohibit the salvage of this timber except for firewood.

9. No contour map of the reservation could be obtained, there being none of record at these headquarters or in the city of Spokane. The elevations shown on "A" were checked with the United States Geological Survey bench mark on this reservation corrected to correspond with the city of Spokane datum plane. The elevations used by the city and by the engineers who surveyed for the water development under consideration were brought here by one of the railroads. The United States Geological Survey elevations were brought from the coast and are 14.062 feet higher. The data was obtained from the city engineer, Spokane. Using a transit as a level instrument, the new high-water line was laid out along the entire river bank bordering the reservation. No part of the reservation would be flooded either directly or by seepage except as shown in "B." At flood stage the river would do no damage to the reservation. Blueprint "A" also shows the new water level in red through part of the reservation.

10. As explained in the letter of Mr. Hough, the grantees can not at this time purchase any lands for exchange, and therefore description can not be given. There are, however, many locations near Fort George Wright and Spokane where excellent range could be constructed and the grantees prefer to have the War Department designate what would be considered satisfactory.

11. It is not considered advisable to consider the transfer of any lands to the United States that do not border on the present reservation. It is further believed that the interests of the Government are fully protected by provisions of the bill submitted, unless with the exception hereafter indicated. The grantees desire to purchase the lands and convey the same to the United States rather than fill in the present range for maximum construction, and they should be notified at an early date of any lands the War Department desires for target-range purposes so that said lands may be either purchased or optioned. This proceeds on the assumption that the grantees would find no obstacles in the way of purchase and delivery of the necessary new lands so designated. In case it should be necessary to condemn land in order to secure all land needed, by and within a limit of time, it might be questioned as to whether the grantees would have power to condemn land for target-range purposes, even for the use of the Government, in which case it might be advisable to have the bill amended by way of conferring power upon the Secretary of War to condemn the necessary tracts of land to facilitate the exchange outlines, such condemnation to proceed at the expense of the grantee. With power to condemn attached to the bill, it should be considered sufficient for every practical contingency.

12. Mr. John D. Sherwood, mentioned in the bill as grantee, died the latter part of 1919. At present there is a legal conflict being carried on in the courts among the heirs of the above, and to avoid any possible future complication the bill should be amended to read "Lloyd E. Gandy, of Spokane, Wash., as grantee, his heirs and assigns," instead of "John D. Sherwood, of Spokane, Wash., as grantee, his heirs and assigns." This data was furnished by Mr. H. S. Stoolfire, of Spokane, Wash., attorney for the developing company.

13. The bridge over the Spokane River, shown on blue print "A" as "X" will be flooded to a depth of 4 feet over the floor. It is owned by the city of Spokane and is a part of the park development system of the city. The land on which the north end rests was deeded to the city by the late John D. Sherwood with a reservation that said land could be overflowed by himself, his heirs, or assigns. Such being the case the city has nothing to do about the removal of the bridge. Information was obtained from Mr. A. D. Butler, city engineer of Spokane, Wash.

14. The sewage of the city of Spokane empties into the Spokane River at several points above the Fort Wright Reservation. Owing to the swift current the pollution of the stream is so low that property owners have no cause for objection. In case a dam is constructed below the reservation the water will become much deeper and the flow much less rapid. Inclosed is statement on the conditions that will follow by Maj. Harry C. Ford, Medical Corps, post surgeon.

15. After the approval of the act, considerable time will be required for the company to develop business, complete engineering plans, and to construct a dam and power house. This is estimated at from two to three years and therefore affords ample time to satisfy the interests of the Government from a military point of view.

G. B. DUNCAN,

Colonel Twenty-first Infantry, Commanding.

Five inclosures.

[First indorsement.]

WAR DEPARTMENT,
OFFICE OF THE ADJUTANT GENERAL,
December 6, 1919.

To the COMMANDING OFFICER, *Fort George Wright, Wash.*

(Through the Commanding General, Western Department, San Francisco, Calif.)

The foregoing bill has been referred by the Committee on Military Affairs, United States Senate, to the Secretary of War for an expression of his views thereon.

A complete report is desired with reference to the exchange contemplated by this bill, including a description of the land, together with the improvements thereon, if any, to be overflowed and its availability in its present condition for military purposes, and a description of the land proposed to be conveyed in exchange, together with the improvements thereon, if any, and its availability for military uses; including also a statement of the effect of such exchange and consequent overflowing of the land in question on the reservation and its use for military purposes, and the desirability, from the point of view of protecting the interests of the Government for making the exchange, setting forth all the facts and circumstances bearing on that question.

By order of the Secretary of War:

G. H. DAVIS, *Adjutant General.*

[Second indorsement.]

HEADQUARTERS WESTERN DEPARTMENT,
San Francisco, Calif., December 12, 1919.

To the COMMANDING OFFICER, *Fort George Wright, Wash.:*

For remark.

By command of Lieut. Gen. Liggett.

BENJ. ALVORD,
Colonel, Adjutant General, Department Adjutant.

WAR DEPARTMENT,
HEADQUARTERS WESTERN DEPARTMENT,
OFFICE DEPARTMENT ENGINEER,
San Francisco, March 23, 1920.

Memorandum for the commanding general:

1. The above first indorsement, Adjutant General's Office, December 6, 1919, requires a complete report with reference to the exchange contemplated, including:

(a) A description of the land, together with the improvements thereon, if any, to be overflowed, and its availability in its present condition for military purposes.

(b) A description of the land proposed to be conveyed in exchange, together with the improvements thereon, if any, and its availability for military uses.

(c) A statement of the effect of such exchange and consequent overflowing of the land in question on the reservation and its use for military purposes.

(d) The desirability, from the point of view of protecting the interests of the Government, of making the exchange.

(e) All the facts and circumstances bearing on that question.

2. All of the above requirements have been complied with by the commanding officer, Fort George Wright, in his third indorsement. February 27, 1920, with the exception of (b), viz, "A description of the land proposed to be conveyed in exchange," the statement being made (par. 10) that "the grantees can not at this time purchase any lands for exchange, and therefore description can not be given," and (par. 11) "they should be notified at an early date of any lands the War Department desires for target range purposes, so that said lands may be either purchased or optioned." No recommendation is made, however, as to lands that might be suitable and desirable for the purpose of a target range, and the War Department could not well act in the manner suggested without such recommendation.

3. On the present target range the firing is in a direction away from the post buildings and the city of Spokane, and toward a bluff rising over 100 feet above the level of the range and toward an unoccupied portion of the reservation which can be controlled against danger from wild shots or ricochets. Owing to the proximity of the city of Spokane and the railroads and roads and houses on both sides of the river, it will be difficult to find lands adjacent to the present reservation where a target range would be so well guarded against danger from stray shots, and unless a safe site can be found and acquired it is believed that authority for the proposed maximum development overflowing the present target range should be denied.

4. With reference to the last part of paragraph 11, third indorsement, it is doubted whether the United States can, even by act of Congress, lend its power of condemnation to an individual for private purposes.

5. To determine whether the pollution of the proposed pool by sewage from the city of Spokane would be objectionable on the ground of disagreeable odors, a study of data as to the low water discharge of the river and its duration, and as to the amount of sewage discharging into the pool, would be necessary, and such data is not available in this office. In similar cases, however, such as those cited in the attached interview of J. B. Ingersoll, objectionable odors from the diluted sewage have not been serious.

4. There appears to be no reason to question the accuracy of the surveys upon which the plans of the proposed dam and the predicted water levels in the resulting pool have been based. To make sure, however, that the predicted water levels will not be exceeded, it would be well to add the following proviso to the bill: "*Provided further, That before construction of the dam is commenced the location, plans, and height thereof shall be submitted to and receive the approval of the Secretary of War.*"

THOMAS H. REES,
Colonel, Corps of Engineers, Department of Engineers.

WAR DEPARTMENT,
HEADQUARTERS WESTERN DEPARTMENT,
OFFICE OF THE JUDGE ADVOCATE,
March 11, 1920.

Memorandum for Commanding General.

Subject: Establishment of power dam across Spokane River.

From a perusal of the papers herewith it would appear that there is a difference of opinion between the medical officer at Fort George Wright and the utility officers of this department as to the effect of the building of the proposed dam on the reservation at Fort George Wright.

It is shown by the records herewith that the only report made by any engineer in connection with the building of the proposed dam was made by civilian engineers who apparently were employed by the interested parties named in Senate bill 381, and the report of the commanding officer Fort George Wright, herewith under third indorsement, is evidently based upon the report of these civilian engineers.

I believe that this entire matter should be reviewed by the department engineer, and for this reason recommend that all these papers be referred to him for remark.

G. V. PACKER,
Lieutenant Colonel, Judge Advocate,
Department Judge Advocate.

HEADQUARTERS WESTERN DEPARTMENT,
OFFICE OF THE DEPARTMENT UTILITIES OFFICER,
San Francisco, Calif., March 3, 1920.

Memorandum for commanding general:

The storage of the contemplated lake, or that portion of it between the upper end of the reservation and the dam, will be approximately 7,000,000,000 gallons. Add to the normal flow of the river, and it is evident that no pollution from sewage (from a city the size of Spokane) would ever be noticeable.

Objection to the project from a sanitary standpoint, in the opinion of this office, is without merit. Attention is invited to third indorsement, paragraph 12.

As all rights of the Government are amply protected by the bill, and the flooding of the range is not authorized until after a new range (acceptable to the Secretary of War) is provided and equipped, it would appear that the bill as a whole could meet with no objection. In addition, the creating of a lake, adjoining the post for its full length would be a marked benefit and add greatly to its beauty.

To J. A. for remark.

M. W.

P. J.

POST HOSPITAL,
Fort George Wright, Wash., February 26, 1920.

Memorandum to post commander:

Upon investigation of the probable results to this post from the establishment of a power dam across the Spokane River, the conclusion is reached—

That, because of the slowly moving current without the advantage of falling over a rocky bed, the sewage from the city of Spokane will not be sufficiently diluted and aerated to prevent its constituting a nuisance to this post, because of the odor.

Upon consultation with the city engineer, he informs me that, while he does not agree fully with my opinion, should such condition prevail the city of Spokane will be the first sufferer, and steps will immediately be taken to otherwise dispose of the city sewage.

It occurs to the writer that the prevention of this condition—an easy matter of continuing the sewers to a point below the proposed dam site before the same is built will alleviate many months of discomfort to this post while negotiations are being carried on after the same is completed.

HARRY G. FORD,
Major, Medical Corps.

SPOKANE, WASH., January 16, 1920.

Maj. P. K. JOHNSON,
Fort George Wright, Spokane, Wash.

DEAR SIR: I hand you herewith blue print of a section of the Spokane River showing contour lines along the east shore line of Fort George Wright, and west shore line of Down River Park, Spokane, in connection with your investigation of the property affected by Senate bill 381.

The following explanatory data with this survey and blue print may assist you in making the examination.

Sherwood and others do not contemplate any actual development of water power on or adjoining Fort George Wright. Development will take place about 3 miles below the fort. Messrs. Sherwood, et al, plan to raise the dam at the point of development a sufficient height to create a lake or dead water between Fort George Wright and Down River Park, and the contour lines shown by the plat handed you herewith is

made for the purpose of indicating the height of the water along the Government target range and Down River Park shore line at different levels, depending on the height of the dam. Minimum development plans contemplate filling depressions and leveling off the present target range. Maximum development plans contemplate that another larger target range with such equipment as may be prescribed by the War Department be secured and deeded in exchange for the present range.

Minimum development creates a water level along the fore bay back of the dam equal to elevation 1,683.4 (U. S. G. data), or contour line "63.4." Maximum development would establish a fore bay elevation of 1,700 U. S. G. equal to contour line "80." Elevations not marked U. S. G. are city of Spokane elevation data, which is slightly different from U. S. G.

Contour line "75" along target range shown on this plat is at an elevation of 1,695 (U. S. G. data), and may be easily located as a starting point. The new minimum water level along the target range under the development proposed should equal theoretically the level of the forebay 1,683.4, or contour line "63.4." The nearest contour line shown on the plat is "65." The general level of the target range is above contour "65" except for slight depressions, and the actual necessity of improvements may be questioned except in extreme high water.

Our minimum development plans contemplate that the depressions will be filled in so as to bring the level up to an elevation equal to 1688, or about 4.6 feet above the new water level, particularly at targets and shooting stations. Elevation 1688 would be equal to contour "68"; contour "70" is the nearest line actually staked under our survey and shown by the blue print herewith. We estimate it will require approximately 40,000 cubic yards to construct the fill.

Then Mr. Sherwood, as one of the donors of Down River Park, planned to create a water level sufficient to establish a lake between Down River Park and the fort grounds as a part of the park development, and a low head or dam would sacrifice some of the proposed park development. Likewise a high dam will create a larger and more attractive lake.

Respecting the provisions of this bill which authorized the Secretary of War at his option to exchange the present target range for other lands, rather than accept improvements on the present range, I am authorized to say that Messrs. Sherwood et al, do not own or hold any other lands for exchange, but after examination are of the opinion that several larger and better range sites can be secured; that in consideration of the cost of maximum development of the present range that other lands affording a much longer and better range with more complete equipment can be secured for the expenditure required even under minimum development, and if a scarcity of power should exist at the time this development takes place, even a greater expense might be justified in providing another target range in order that the maximum power might be developed. The present range is short, and more quiet and comfortable surroundings at the municipal hospital just across the river could also be brought about by such change. Under these circumstances the applicant deemed it expedient to have Congress confer authority on the Secretary of War, to exchange for other lands in case the Secretary of War deemed it to the best interest of the War Department and all concerned to do so when the time for development arrives, or at his option require improvements on the present range. The applicants can not well afford to buy and offer another range site at this time, or unless and until Congress should authorize the exchange, but we would be pleased to point out other ground and specify improvements, which we think would afford greatly improved facilities at request of the War Department.

You may call on us for any further engineering data desired. We have set stakes in establishing these levels, and will be pleased to go over the ground and identify our stations if you desire.

Very respectfully,

U. B. HOUGH, C. E.

SPokane, WASH., February 25, 1920.

Maj. P. K. JOHNSON,
Fort George Wright, Spokane, Wash.

DEAR SIR: After your messenger left it occurred to me that Mr. J. B. Ingersoll, constructing engineer for the Inland Railroad at the time their 9-mile power plant was constructed, had given the Chronicle an interview on this subject under date of June 28, 1919. I have looked up the article and submit a copy for whatever purpose it may serve in your investigation.

Have a large amount of data in the nature of reports where similar questions have been considered and disposed of by other cities. We have collected them merely

as a matter of reference. The liability for sewage disposal rests entirely with the city and not with the shoreland owners, regardless of the nature of the pursuits in which they may be engaged.

Very truly, yours,

H. S. STOOLFIRE.

Inclosure.

[Interview of J. B. Ingersoll, Spokane Chronicle, June 28, 1920.]

The current in the river will not be killed by the erection of a dam at the smelter site, but the velocity of the water will be reduced particularly along the bank, such as has taken place in the back water above the Nine Mile Dam, but on a much larger scale. The back water of this lake will not be so long or so wide, and there will be a stronger current. If Commissioner Flemming's idea is to have the lake along Down River Park tract free even from the presence of sewage, the idea is praiseworthy, but not necessary from a sanitary standpoint. As a park improvement, practically the same results could be accomplished by extending the mouth of the great sewer to a point below the park tract. For the same reasons the mouth of the sewer should be extended to a point below the park tract whether a dam is ever erected or not. When the park lands were deeded to the city, I am informed, both parties, the donors and the city, reserved the right to install a dam for the purpose of creating a lake to improve the park tract. Such a lake will be a fine addition to the park, a great improvement to the city, and with reasonable limits of expense, should be completed in its most attractive form.

It must be borne in mind that noticeable effects of sewer in the river is not the sanitary test that applies here. It will be solely a question of when the water would become overcharged, requiring sanitary precaution. If the mouth of the down-river sewer was extended to the center of the channel, below the isolation hospital, and park tracts, the park would obtain the maximum benefit from the improvement, and Spokane could reasonably take on a million or more of population before any changes will be necessary.

A similar question has arisen at Washington, D. C., and other points along the Atlantic where sewage is discharged into the tide water where tidal currents create little activity. The city of Nashville has discharged into the Cumberland River above a dam for a number of years and has never found the water overcharged. The drainage canal at Chicago is an extreme but parallel case where the quantity of sewage is multiplied many times beyond the quantity of water involved here. The water is dammed at Minneapolis and St. Paul, and I am informed has at times undergone considerable debate and an extensive investigation and expense, and at no time has the water been found overcharged. The pollution of the water for domestic purposes is entirely another and a different subject that does not apply here, as at Milwaukee where domestic water was being taken from Lake Michigan at a point within about two miles from where the sewage was discharged. Spokane has an inexhaustible supply of fine water for domestic purposes obtained beyond the river, and the question of sewage disposal will always be easy as compared with cases like Milwaukee and other lake shore cities.